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ABSTRACT

A study compared the high school, postsecondary education, and work experience records of graduates from four high school programs of study. Graduates of Academic/College Preparatory (ACP), General (GEN), Home School Business Program (HSBP), and Area Vocational-Technical School (AVTS) from 1982, 1985, and 1988 were surveyed during the 1989-90 school year. The sample consisted of 50 percent of the graduates from three school districts sending students to Bethlehem (Pennsylvania) AVTS. The mail questionnaires surveyed general information, educational history, and employment history. Findings indicated that Chi-square analysis for satisfaction with high school program was not significant. Over one-quarter did not feel prepared to make decisions following high school. The Chi-square analysis proved significant for persons who influenced the graduates in selection of high school curriculum. Full-time work status for HSBP and AVTS graduates was higher than for any other category. Eighty-two percent reported attending a postsecondary program--94.9 percent of ACP, 64.4 percent of GEN, 66.2 percent of HSBP, and 51 percent of AVTS graduates. The Chi-square analysis indicated some real differences in type of initial employment. Most reported satisfaction with their jobs and training received. Statistical analyses examined such variables as grade point average, class rank, and English, math, science, and total credits. (Appendixes include 50 tables, a transcript evaluation form, and the questionnaire.) (YLB)

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FINAL REPORT

PENNSYLVANIA GRADUATE STUDY

Comparative Analysis of the Post-Secondary Experiences of Graduates of Vocational, Academic, and General Curricula for the Years 1982, 1985, and 1988

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Supporting Schools and School Districts

Bethlehem Area Vocational-Techincal School
Bethlehem Area School District
Northampton Area School District
Saucon Valley School District

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Most importantly, a special thanks is offered to those high school counselors who took the time to evaluate the transcripts of each of the study's participants. Their help was greatly appreciated by everyone at BCA. Barbara Ahern, Mary Concilio, Robert Frey, Dale Fritchman, and Denise Bodey were quite cooperative and very pleasant during a very thankless task.

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REPORT

Comparative Analysis of the Post-Secondary Experiences of Graduates of Vocational, Academic, and General Curricula for the Years 1982, 1985, and 1988

Dr. Artis J. Palmo
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The primary intent of the present investigation was to compare the high school, post-secondary education, and work experience records of graduates from four different high school programs of study Academic/College Preparatory (ACP), General (GEN), Home School Business Program (HSBP), and Area Vocational-Technical School (AVTS). In order to offer the most effective comparisons among the graduates of the four high school programs, high school graduates from 1982, 1985, and 1988 were surveyed.

The research was conducted during the 1989-1990 school year with the Bethlehem (BASD), Northampton (NASD), and Saucon Valley (SVSD) School Districts, the three districts sending students to the Bethlehem Area Vocational-Technical School. These three school districts draw students from urban, suburban, and rural areas, providing educational services to a broad spectrum of students from various socioeconomic levels.

Sample

The sample for the study consisted of 50 percent of the graduates from the three school districts (BASD, NASD, and SVSD) sending students to Bethlehem Area Vocational-Technical School for the years 1982, 1985, and 1988. Data was obtained from the individual transcripts of the graduates

as well as a survey questionnaire developed by Bethlehem Counseling Associates (BCA). It should be noted that BASD was the only district with two high schools [(Liberty High School (LHS) and Freedom High School(FHS)]. Because the two high schools draw students from rather distinctly different locales within BASD, the data analyses were done utilizing the two high schools as separate entities.

The sample for the study was drawn by having each school district select the transcript for every other student graduating in 1982, 1985, and 1988. Once a graduate was selected, a copy of the transcript was made and forwarded to Bethlehem Counseling Associates. It was assumed that by selecting every other graduate, a relatively balanced sample of each of the four curricula would be obtained.

Questionnaire development

Using the questionnaires developed in previous research sponsored by the Department of Education, Bureau of Vocational and Adult Education as a model, the project coordinator and the administrative staff of BAVTS developed an initial draft of a questionnaire. Once the initial draft was complete, a second draft was distributed to several other staff members at the vo-tech for evaluation.

After obtaining the necessary feedback, a third draft was written and distributed to the Local Advisory Committee of BAVTS. The members of the committee completed the questionnaire as well as critiquing the items for clarity. Finally, following the revisions suggested by the Advisory Committee, a fourth draft was submitted to a class of adults at the vo-tech school. Following the adult sampling, the final draft of the questionnaire was prepared for distribution to the graduates.

Although it took more time to develop the questionnaire than expected, the extra time and screening provided a clearly presented instrument. A complete copy of the questionnaire is provided in the appendix.

Questionnaire data collection

The approval of Bethlehem Counseling Associates (BCA) as the research group to conduct the study was given on December 5, 1989. As soon as the Board of Directors of BAVTS approved the project, a request for 50% of the transcripts from each district was made. The final group of transcripts was received on January 31, 1990. Once the transcripts were received, mailing labels were made for each graduate chosen. The questionnaire was sent to a total of 2,287 graduates beginning on February 6, 1990. On March 12, 1990, a reminder was sent to the graduates who did not respond to the first request. The original letter of request and the follow-up note appear in the appendix.

Questionnaire information

The final draft of the questionnaire consisted of three primary sections: 1. General Information; 2. Educational History; and 3. Employment History. The information requested was directed toward the questions of interest that were posed by the Pennsylvania Department of Education, Bureau of Vocational and Adult Education. In addition, some questions were added to gather information of importance to BAVTS staff.

The General Information section sought information related to the graduates high school program of study; satisfaction with their high school program; persons influential in their choice of high school program; present activities; armed service record; place of residence; and parents educational level.

Educational History consisted of questions related to whether or not the graduate chose to attend college. This section provided information about the college attended and whether or not the graduate chose to remain in Pennsylvania. The third section collected data relating to present employment, salary, job satisfaction, job referral, and on-the-job training.

Transcript data collection

Although transcripts were collected for the entire sample group in order to determine the graduates addresses, only those transcripts with an accompanying completed questionnaire were evaluated. Guidance counselors from each of four high schools evaluated all transcripts to determine the race, special needs status, curriculum, sex, GPA, class rank, and credits (English, Math, Science, and AVTS). A sample of the form that was used is provided in the appendix.

Data Collection Dates

Questionnaires were accepted for inclusion in the study through April 6, 1990. After that date, none of the questionnaires were accepted for the study. Evaluation of the transcripts was completed on April 20, 1990. Table 2, presented below, provides the percentages of questionnaires that were unable to be delivered. As you will note, a total of 16 percent of the total group sampled no longer resided at the same address as in high school. The range of returned questionnaires (return to sender) is 15 to 18 percent, a relatively similar percentage for each of the high schools.

Table 2

Percentage of Non-Delivered Questionnaires

	Year of Graduation			
High School	1982	1985	1988	Totals

Northampton H.S.	*22% **(45/205)	12% (28/234)	15% (35/238)	16% (108/677)
Saucon Valley H.S.	22% (21/97)	19% (13/70)	4% (3/84)	15% (37/251)
Freedom H.S.	19% (48/248)	17% (36/207)	8% (19/225)	15% (103/680)
Liberty H.S.	23% (64/282)	19% (40/212)	8% (15/185)	18% (119/679)
Totals	21% 178/832	16% 117/723	10% 72/732	16% 367/2287

*percentage rounded to nearest whole number
**actual number of non-delivered questionnaires over sent

Research Questions

The following questions were tested in the study:

1. Secondary School experiences of high school graduates: The four study groups (ACP, GEN, HSBP, and AVTS) would show no significant differences on the experience variables of gradepoint average (GPA) class rank (CR), credits (English, Math, Science, Vocational), satisfaction with high school program, preparedness for post-high school, and educational level of parents.
2. Post-secondary school experiences: The four study groups (ACP, GEN, HSBP, and AVTS) would show no significant differences on the post-secondary experience variables of pursuit of post-secondary education, type of post-secondary institution, location of institution, completion rates, and status within their higher education program of study.
3. Work experiences and employment history: The four study groups (ACP, GEN, HSBP, and AVTS) would show no significant differences on the work experience variables of work participation, salary, full-time employment,

job satisfaction, mobility, on-the-job-training, size of firm, self-employment, and referral for a job.

SURVEY RESULTS
Demographics

Since the data gathered from the "Pennsylvania Follow-up Study of High School Graduates" are voluminous, the results are presented in several different categories. The first sections of the report will present demographics from the questionnaire results, while later sections will present statistical analyses of the data gathered. The results will be reported according to the order of the questions on the survey instruments - graduate questionnaire and school counselor transcript evaluation sheet.

Counselor Responses

Curriculum Patterns

Table 3 presents the categorization of graduate according to high school program of study - Academic/College Preparatory (ACP), General (GEN), Home School Business Program (HSBP), and Area Vocational-Technical School (AVTS).

Over-all, 22.5% of the survey respondents were involved in AVTS programs during their high school years. A total of 38.3% of the survey respondents were involved in vocational education programs at the vo-tech and in HSBP. By far, the largest number of respondents were enrolled in ACP(54.8%) while the smallest number were enrolled in the general curriculum (6.6%).

School District Responses

Tables 4 and 5 present the response rate for the individual districts and for the three years of interest in the study. As you will note, there is balance among the four high schools surveyed and for the three years studied. The three large high schools (NASD, FHS, LHS) maintained a

relatively similar response rate, which would be expected considering the sample size utilized.

Also, Table 5 shows that there is a slightly higher return rate for the year 1988, but a relatively similar percentage return rate for each year. The percentage of return from the year 1982 was somewhat lower, as suspected. However, considering the length of time since graduation for these participants, the return rate was outstanding.

Frequency Distribution for Males and Females

Of the total number of respondents, 41.5 percent were male, while 58.5 percent were female. There is no adequate explanation for the difference between the sexes, other than the fact that women tend to answer requests for information more frequently than men. The results are similar to those reported in previous research by Dr. Kenneth Gray, Ms. Edith Isacke, and Mr. Wang Dan-Shang of the Pennsylvania State University.

Frequency Distribution for Race

Table 6 presents the figures for the categories considered under race. The counselors completed this data according to the records maintained in the high schools as well as from the memory of the guidance staff. As you will note, the vast majority of the respondents were white, with 97 percent of the sample identified a white.

Frequency Distribution for Special Needs

Table 7 presents the frequency distribution for the special needs status of the sample. The counselors attempted to provide as complete a record of status as possible, since most transcripts do not provide any record of special needs status. Approximately 4 percent of the sample qualified as special needs.

Credit Distribution

One of the concerns of the study was to determine the number of credits the graduates received in English, Math, Science, and AVTS over the course of their three years in high school. Tables 8, 9, 10, and 11 present the results of the evaluation of transcripts for the sample.

An examination of the above tables shows some interesting results as well as surprising discrepancies. First, Table 8 shows that only 0.7 percent of the graduates who responded did not complete three credits of English during high school. In comparison, as shown in Table 9, 47.9 percent of the respondents completed less than three credits of Math and Table 10 shows that 51.1 percent less than three credits of science.

Questionnaire Results

Frequency Distribution for Age

Table 12 presents the frequency distribution for the age of the survey respondents. As you will note, there is a relatively similar percentage of 19, 22, and 25 year olds. The distribution of respondents by year of graduation was relatively the same.

High School Program Identified by Respondents

One of the points of interest in the present study was whether or not the graduates could correctly identify the program from which they graduated. Previous studies have shown that graduates tend to select the academic program instead of the general program; even though they may have graduated from the general program. Table 13 presents the results of the survey.

Comparison of the results of Table 13 with Table 3 will show that the respondents' answer to program of study was similar to the counselor's

evaluation of the transcript. For example, according to the counselors, a total of 62 percent of the respondents were evaluated to have graduated from ACP. As noted in Table 13, 63 percent of the graduates reported graduating from ACP. Similar results were obtained for GEN (11.6% vs 11.4%) and AVTS (22.5% vs 20.6%). However, for HSBP there seems to be more of a discrepancy, with the counselors' classifying 16.7% as HSBP while only 10.1% of the respondents reported HSBP.

Overall, there appears to be relative consistency between the transcript evaluation of the counselors and the reports of the survey respondents. As with the counselors' evaluation, some respondents classified themselves in more than one of the categories. It appears the respondents were more aware of their high school curriculum than respondents in other studies.

Graduates Satisfaction with High School Program

The graduates were asked to rate how satisfied they were with the programs they chose in high school. Table 14 presents the Chi-Square analysis for 6 groups of graduates. When responding to the questionnaire, some respondents chose more than one curriculum, i.e., academic and vo-tech. Therefore, for each of analysis and interpretation, the following tables will list the four main programs (ACP, GEN, HSBP, AVTS) along with categories titled Multiple with Vo-tech (MULT/AVTS) and Multiple without Vo-tech (MULT).

As you will note from Table 14, the Chi-Square analysis was not significant (.3967 n.s.) for this question which means that there was no difference among the 6 categories in reported satisfaction with high school program. Also, you will note that 86.1 percent of the respondents reported

being very satisfied (13.7%) or satisfied (72.4%) with their high school program.

Preparedness for Decisions Following High School

The respondents were asked to evaluate how effectively they were prepared for life immediately following high school. Table 15 presents the Chi-Square analysis for this question. The Chi-Square analysis was not significant (.3967 n.s.); however, some important observations can be made of the data.

First, only 7.8 percent of the graduates reported being very prepared for the decisions they made immediately following high school. Second, 64.3 percent reported being prepared while 24.7 percent reported being unprepared for decisions immediately following high school. Approximately 28 percent of the graduates reported being unprepared.

Two other points should be noted. Of the 44 graduates of the General program, none rated themselves as very prepared for the decisions they faced immediately following high school. When considering those graduates who reported being unprepared or very unprepared, the data show a range of dissatisfaction of 21 to 39 percent (ACP=27%; GEN=34%; HSPB=22%; AVTS=30%; MULT/AVTS=39%; MULT=21%). On the whole, over one-quarter of the graduates did not feel prepared to make decisions following high school.

Persons Influential in Decision-Making

As you will note from Table 16, the Chi-Square analysis proved significant for persons who influenced the graduates in their selection of high school curriculum. Interestingly, parents remain the most influential in selection of school program over-all, with 52.5 percent of the graduates reporting parents as most influential. However, parents proved to be most

influential for students in ACP(67%) when compared to students in the other programs. For the other programs, parental influence ranged from 22.2 to 42.9 percent.

Table 16 also shows that teachers and counselors have very little impact on the decision of high school program, all together, accounting for only 20.5 percent of the influence compared to 52.5 percent for parents. In addition, the "other" category accounted for the second highest percentage over-all, with 17.4 percent on the whole; but ranging form a low 11.3 percent in ACP to a high of 27.5 percent in MULT/AVTS. The vast majority of "other" was identified by the graduates as self. Therefore, a large number of students depend upon their own knowledge and expertise when choosing a high school program.

Marital Status and Children

Of the 690 graduates who responded to this item, 18 percent were married, 2 percent divorced, 79 percent never married, and 1 percent separated, Of the graduates responding, approximately 93% did not have children.

Employment Status of Graduates

Table 17 presents the Chi-Analysis for the employment status of the graduates form the six high school program categories. As you will notice, the full-time work status for the HSBP and AVTS graduates is higher than for any other of the categories. However, please note that 32.7 percent of the ACP graduates report being in school. Over-all, a surprisingly low number of graduates report being unemployed (1.6%), having health problems (.4%), being homemakers (1.6%), and joining the services (2.5%).

Graduates attending some type of post-secondary institution tended to be from the ACP (32.7%), MULT/AVTS (17.6%), and MULT (27.3%). However,

ACP graduates (or ACP plus AVTS or HSBP) tend to be the graduates who choose to attend post-secondary institutions, not GEN, HSBP, or AVTS graduates.

Graduates Choosing Armed Services

Of 672 graduates responding to this question, 44 (6.5%) reported serving in the armed services. The graduates choosing the armed services came from all six categories of high school programs. The vast majority chose the Army, Navy, or Air Force.

Graduates Changing Residence

The respondents were asked if they changed residence during the first 18 months following graduation. Table 18 presents the results of the Chi-Square analysis of those graduates who changed residence by the program they took in high school. As expected, the ACP graduates reported a higher rate of change of residence than any other group.

ACP graduates reported that 6.7 percent of them moved within the county; 24.1 percent out of the county but within Pennsylvania; and 15.5 percent out of Pennsylvania. They moved to 20 different counties with in Pennsylvania and 23 states beyond Pennsylvania, as well as, 3 foreign countries. The primary reason for moving reported by ACP graduates was education.

For the GEN graduates, 31.1 percent reported moving during the first 18 months following graduation. Of the 31.1 percent moving, 13.3 percent were within the county; 6.7 out of the county, but within Pennsylvania; and 11.1 percent moved out of Pennsylvania. The GEN graduates reported moving for a variety of reasons, but no one reason dominated.

Of the HSBP graduates who reported moving (14.3%), 3.9 percent moved within the county; 3.9 percent moved out of the county, but within

Pennsylvania; and 5.2 percent moved out of Pennsylvania. The majority reported moving for personal reasons.

Of the AVTS graduates reporting moving (19.6%), almost equal numbers moved within county, out-of-county, or out-of-state. Of those moving, most reported personal issues, education, or armed services as the reason. For the MULT/AVTS graduates, 29.4 percent moved, with approximately equal numbers moving within-the county, out-of-the county, or out-of-state. Reasons for moving were the armed services, education, personal issues.

Twenty-seven point three percent of th MULT graduates reported moving, but most of the group remained within Pennsylvania. Most of this group reported moving for educational reasons.

All-in-all, the graduates tended to remain in the area immediately following graduation. Removing the ACP graduates who move to attend school in another area or state, most of the graduates tend to remain in the area.

Place of Residence

The majority of the graduates reporting living in either rural (40%) or suburban (40.6%) areas. The area encompassed within the three school districts is primarily rural and suburban in nature. Since most graduates tend to remain in the area where they attended high school, it is not surprising to learn that most tend to live in non-urban areas.

Level of Parents Education

The graduates were asked to provide information related to the level of education achieved by their parents. Results of this question are presented in Table 19 and 20, Chi-Square Analyses of Parents Education by High School Program. As you will note in the two tables, both Chi-Square

analyses are significant. Of importance, the ACP graduates' parents tend to have more education than parents from the other program's graduates, while having comparatively fewer high school dropouts.

Graduates Attending Post-Secondary Institutions

Table 21 presents the Chi-Square analysis for those students attending post-secondary educational institutions by the program taken in high school. As you will note, there are some broad discrepancies in the number of students attending post-secondary educational institutions. Also, please note that 82.0 percent of the graduates reported attending some type of post-secondary program.

In order to completely understand the results of Table 21, a presentation will be made regarding the results of the Educational History of the graduates by the high school program they completed.

ACP. As seen in Table 21, 94.9 percent of the high school graduates attended some type of post-secondary institution. Of this group, 45.3 percent completed their schooling during the years 1984 to 1990. Forty-one percent are attending school on a full-time basis presently, and expect to graduate during the years 1990-1994. Only 4.0 percent of the ACP graduates are enrolled part-time, with 5.1 percent being out-of-school presently, but expecting to return in the future. Only .8 percent have no intention of returning to school in the future.

A breakdown of the institutions attended by ACP graduates would show 73.7 percent attending four-year colleges throughout the United States. Only a small percentage (1.1%) attended two year colleges, primarily nursing programs. A large number of ACP graduates (17.4%) attended the local community colleges (Lehigh County Community College and Northampton Community College).

Very few ACP graduates attended post-secondary vocational-technical institutes (.8%); private business or trade schools (4.0%); or other types of private training schools (6.2%). In fact, the other category generally was graduate training, rather than trade oriented.

GEN. For graduates of the general program, 64.4 percent reported attending post-secondary institutions. Twenty-two percent completed the schooling during the years 1983 to 1990. Only 13.3 percent are presently enrolled full-time, with expected graduation in 1990 to 1992. Another 6.7 percent are enrolled part-time with expected graduation in 1991 or 1992. Presently, 15.6 percent are no longer attending school, but intend to return some time in the future. Several (8.9) noted that they did not intend to return to school in the future.

Of those attending school, 4.4 percent attended four-year colleges, mostly local colleges, and none attended two-year colleges. Approximately 26.7 percent attended the local community colleges; 2.2 percent local vocational technical schools; 4.0 percent private business, technical, or trade institutes; and 6.2 percent other types of training, such as institutes in the armed services.

HSBP. Of the home school business program graduates, 66.2 percent reported attending post-secondary educational institutions. Thirty-six point four percent completed schooling during the years 1984 to 1990. Another 7.8 percent were enrolled full-time and 9.1 percent enrolled part-time, both with anticipated graduation during the time between 1990 and 1993. Also, another 6.5 percent intend to return during the next year and 7.8 percent do not intend to return to school.

Of those attending school, 7.8 percent attended four year colleges, primarily local institutions. Interestingly, equal numbers (28.6%) of

graduates attended the local community colleges as well as the local private business, trade, and technical schools. None went on to post-secondary vocational-technical schools, although some (5.2%) chose training in the armed services or similar programs.

AVTS. Fifty-one percent of the AVTS graduates reported attending post-secondary institutions, with 18.6 percent reporting completing school during the years 1983 to 1989. Of those reporting, 5.9 percent are enrolled full-time and 8.8 percent part-time, expecting to graduate during the years 1990-1994. Some intend to return to school (7.8%), while others do not (3.9%).

Of the AVTS graduates, 9.8 percent attended a four year college in the immediate geographic area. Another 3 percent attended two-year colleges, while 24.5 percent attended the local community colleges. Only 2 percent attended post-secondary vocational-technical schools, while 10.8 percent attend private, local business, technical, or trade schools. Another 8 percent attend a variety of related training programs, including the armed services.

Employment History

The questionnaire examined the first, second, and third jobs held by the graduates. Data presented will need to be examined considering the relative experience of all three graduating classes.

Full-Time/Part-Time Work

The significant Chi-Square analysis shown in Table 22 indicates some real differences in the type of initial employment held by graduates of the six categories of program. ACP graduates tend to have more part-time employment than the other program graduates; although on a percentage basis, GEN graduates have an almost equally high level of part-time

employment. The larger numbers of ACP graduates initially working part-time relates to working while going to college. As you inspect Tables 23 and 24, you will note changes in the number of ACP graduates working full-time in comparison to part-time, but the percentages remain about the same.

Table 23 shows relatively identical total percentages to those presented in Table 22. Approximately 63 percent report working full-time and 37 percent report part-time. Table 23 shows that approximately 78 percent of all graduates are working full-time at their third job. The ACP graduates tend to have fewer working full-time, even at the third job.

AVTS graduate reported working full-time 78 to 85 percent over the first three jobs, while no other group showed such consistency. The MULT/AVTS reported a 70 to 78 percent full-time rate of employment, also a high percentage.

Number of Hours per week

The graduates reported a wide variety of hours involved in their three jobs. Some reported working two hours per week while others reported as high as 80 hours per week. For the entire sample of graduates, the average number of hours, mode for the sample, and standard deviation are presented in Table 25.

As you will note in Table 25, the hours are relatively consistent for the first three jobs reported by the graduates as a whole, they average approximately 35 hours per week, with two-thirds of the graduates working between 24 hours and 46 hours per week. With the mode remaining 40 hours per week over the first three jobs, it is apparent that most graduates are involved in traditional types of work.

Tables 26 through 31 present the hours per week for graduates of all curricula. As you will note, the mode for all six categories remains 40 hours

per week; however, the average per week changes in each category. The AVTS and MULT/AVTS seem to come the closest to matching the mode with the average. Generally, the AVTS graduates tend to have a smaller standard deviation, which indicates a consistency among the reports of AVTS graduates of hours worked per week.

Over-all, there is a tendency of having graduates report fewer hours in the first job, with consistently more hours in jobs two and three. The number of hours per week should be kept in mind while reviewing the remaining sections of the report.

Self-Employment

Of the 594 graduates responding to the questions of whether or not their first job was self-employment, only 21 responded yes. There were no significant differences in the number of self-employed across the six categories. For the 331 answering whether or not their second job was self-employment, only 8 responded yes There was no significance across categories, as was true in the first job.

For the 388 responding to self-employment in their third job, 22 responded yes. Once again, there was no significant difference among the six categories. However, it should be noted that only one GEN graduate reported being self-employed. Please see Table 32 for a summary of graduates self-employment selections. On a percentage basis, by the third job more graduates tended to select self-employment as an option versus at job one or two.

Salaries of Graduates

Examination of Tables 33, 34, and 35 shows that the majority of the graduates, whether in their first, second, or third job, earn less than $25,000.

Table 33 shows that 90 percent of graduates earn less than $20,00 per year, while approximately 64 percent earn $10,000 or less.

For second jobs, Table 34 demonstrates that nearly 87 percent of the graduates were earning $15,000 or less. Even during third jobs, Table 35, 71 percent earn $20,000 or less.

The data on salary presents some startling results. Even though many of the graduates were working part-time, it is somewhat surprising to learn that the average salary for first jobs and second jobs was only in the $5,000 to $10,000 range and $15,000 to $20,000 for third jobs. Needless to say, many graduates are living on very minimum incomes.

AVTS and HSBP graduates tend to show higher incomes during first and second jobs, than other program graduates. However, by the third job, most program graduates report rather equal salary levels.

Finding Jobs

When it came to finding a job, several common sources were reported -- Family Member, Friend, Newspaper Ads, and Self-Searches. Regardless of high school program, these four methods are used on a consistent basis. These results support the research literature that indicates family and friends remain strong sources in the search for work. Interestingly, counselors and teachers were of very little assistance in the search for jobs.

Job Satisfaction

Most graduates report being satisfied with their jobs. For first jobs, 23.5 percent reported being dissatisfied or very dissatisfied, while 28.7 percent reported the same for second jobs and 8.4 percent for third. Chi-Square analyses showed no significant differences in satisfaction or dissatisfaction among the six categories of graduates. It is interesting to note that by the third job, satisfaction had increased to over 90 percent.

On-The-Job Training

For first jobs, GEN and AVTS graduates tended to receive significantly more formal on-the-job training than the other program graduates. However, for second and third jobs, there was no significant differences among the six programs in the receiving of on-the-job training. It needs to be noted, that only 30 percent of the graduates received formal on-the-job training.

Approximately 30 percent of the graduates reported learning the job themselves, without help. There were no significant differences among the six programs. Nearly 40 percent of the graduates reported learning the job form a supervisor, with no significant differences among the six programs. Between 35 and 45 percent of the graduates reported learning the job from co-workers, with no significant differences among the six programs.

Satisfaction with Training

Graduates of all six programs reported being satisfied with the training they received. Approximately 85 percent reporting being satisfied with the on-the-job training in their first position, 77 percent in the second position, and 87 percent in the third position. These high numbers seem to indicate a positive experience for most graduates with on-the-job training.

Number of Employees

Among the graduates of the six programs, there were no significant differences in the size of employer hiring the graduates. Table 36 shows the numbers of graduates employed in each of the four categories of employment placement. As you will note, most graduates work in placements having less than 100 employees.

Employer Located Inside/Outside Pennsylvania

Graduates reported that approximately 50 percent of the employers have sites elsewhere in Pennsylvania. On the other hand, approximately 40% have sites outside of the state.

STATISTICAL ANALYSES FOR SELECTED VARIABLES

Various analyses were done to examine some selected variables taken from the transcripts of the graduates. Each variable was analyzed using the six categories of programs (ACP, GEN, HSBP, AVTS, MULT/AVTS, MULT). Analysis of Variance (ANOVA) with Scheffe tests were used in the examinations.

Grade Point Average

The ANOVA for Grade Point Average of the graduates is presented in Table 37 with the results of the Scheffe presented in Table 38. First, Table 37 shows that there is a significant difference in GPA among the six high school programs. Secondly, Table 38 indicates that the lowest GPAs occur with GEN and MULT/AVTS graduates. Although the ACP graduates had an over-all higher GPA than all other program graduates, HSBP, AVTS, and MULT have significantly higher GPAs than GEN and MULT/AVTS.

Class Rank

Table 39, ANOVA for Class Rank of the graduates, presents the results of a comparison of the class rank of the high school program graduates. As you note, there was a significant difference among the six program categories. The Scheffe comparisons in Table 40 show that GEN and

MULT/AVTS have the lowest class rank, and are significantly lower than the other four program graduates. Also, as with GPA, the ACP program graduates had significantly higher class rank than all other programs.

English Credits

Tables 41 and 42 present the comparison of number of English credits with high school program. As you will note, the ANOVA was significant; however, the only significant Scheffe comparison was between the AVTS and ACP program graduates. Although the ACP graduates had significantly more English credits than the AVTS graduates, please note that mean number of English credits for the AVTS graduates is only .16 credits different than the ACP graduates.

Math Credits

As you will note in Tables 43 and 44, there is quite a significant difference among the Math credits earned by the graduates of the six high school programs. The Scheffe results presented in Table 44 show:

1. ACP graduates took significantly more math credits than any other program graduates;
2. MULT graduates took significantly more math credits than AVTS and HSBP graduates;
3. GEN graduates took significantly more math credits than AVTS and HSBP graduates; and
4. MULT/AVTS graduates took significantly more math credits than AVTS graduates.

These results indicate some real discrepancies in the number of math credits taken by high school graduates. ACP graduates are the only graduates to average three full credits of math in high school.

Science Credits

The results presented in Table 45 and 46 show similar results to those presented under math credits. There are significant differences in the number of science credits completed by program graduates. The Scheffe results for science credits given in Table 46 are presented below:

1. ACP graduates took significantly more science credits than any other program graduates;
2. MULT graduates took significantly more science credits than HSBP and AVTS graduates;
3. GEN graduates took significantly more science credits than HSBP and AVTS graduates; and
4. MULT/AVTS graduates took significantly more science credits than HSBP graduates.

AVTS Credits

Tables 47 and 48 present the results of the comparison of vo-tech credits by high school program and, as expected, the AVTS and MULT/AVTS had significantly more vo-tech credits. Of interest is the minimal number of vo-tech credits taken by graduates of ACP, GEN, MULT, and HSBP.

Total Credits Earned

Table 49 and 50 present the analyses for total number of credits by high school program. As you will note, there are significant differences among the programs, with AVTS and MULT/AVTS graduates taking significantly higher number of total credits on the average. ACP graduates took a significantly higher number of credits than GEN, MULT, and HSBP; GEN higher than MULT; and MULT higher than HSBP.

Table 3. Curriculum Patterns According to Counselors

Curriculum	Frequency	Valid Percent	Cumulative Percent
AVTS	102	15.0	15.0
HSBP	77	11.3	26.3
AVTS + HSBP	4	.6	26.9
Gen	45	6.6	33.5
Gen + AVTS	25	3.7	37.2
Gen + HSBP	5	.7	37.9
Gen + HSBP + AVTS	2	.3	38.2
ACP	373	54.8	93.0
ACP + AVTS	20	2.9	95.9
ACP + HSBP	26	3.8	99.7
ACP + Gen	2	.3	100.0
Missing	12	(1.7)	
Total	681	100.0	100.0

Table 4. Frequency Distribution for Return: by District

High School	Frequency	Percent	Percent of Return
Northampton	206	29.7	36
Saucon Valley	82	11.8	38
Freedom	202	29.1	35
Liberty	203	29.3	36
Total	693	100.0	

Table 5. Frequency Distribution for the Years 1982, 1985, and 1988

Year	Frequency	Percent	Percent of Return
1982	215	30.7	33
1985	234	33.8	39
1988	246	35.5	37
Total	693	100.0	

Table 6. Frequency Distribution for Race

Race	Frequency	Percent	Valid Percent	Cumulative Percent
White	607	87.6	97.3	97.3
Black	3	.4	.5	97.8
Hispanic	11	1.6	1.8	99.5
Asian	3	.4	.5	100.0
Missing	69	10.0	Missing	100.0
Total	693	100.0	100.0	

Table 7. Frequency Distribution for Special Needs

Special Needs	Frequency	Percent	Valid Percent	Cumulative Percent
Handicapped	7	1.0	1.1	1.1
Disadvantaged	16	2.3	2.4	3.5
Limited English	4	.6	.6	4.1
None of the Above	628	90.6	95.6	100.0
Missing	38	5.5	Missing	
Total	693	100.0	100.0	

Table 8. Total English Credits

Number of Credits	Frequency	Percent	Valid Percent	Cumulative Percent
2.0	4	.6	.6	.6
2.5	1	.1	.1	.7
3.0	600	86.6	87.2	87.9
3.5	43	6.2	6.3	94.2
4.0	29	4.2	4.2	98.4
4.5	2	.3	.3	98.7
5.0	7	1.0	1.0	99.7
5.5	1	.1	.1	99.9
6.0	1	.1	.1	100.0
Missing	5	.7	Missing	
Total	693	100.0	100.0	

Table 9. Total Math Credits

Number of Credits	Frequency	Percent	Valid Percent	Cumulative Percent
.0	13	1.9	1.9	1.9
.5	1	.1	.1	2.0
1.0	125	18.0	18.2	20.2
1.5	11	1.6	1.6	21.8
2.0	145	20.9	21.1	42.9
2.5	34	4.9	4.9	47.9
3.0	257	37.1	37.4	85.3
3.5	40	5.8	5.8	91.1
4.0	48	6.9	7.0	98.1
4.5	4	.6	.6	98.7
5.0	8	1.2	1.2	99.9
6.0	1	.1	.1	100.0
Missing	6	.9	Missing	
Total	693	100.0	100.0	

Table 10. Total Science Credits

Number of Credits	Frequency	Percent	Valid Percent	Cumulative Percent
.0	13	1.9	1.9	1.9
.5	2	.3	.3	2.2
1.0	185	26.7	26.9	29.9
1.2	1	.1	.1	29.3
1.5	10	1.4	1.5	30.7
2.0	110	15.9	16.0	46.7
2.2	3	.4	.4	47.2
2.5	27	3.9	3.9	51.1
3.0	202	29.1	29.4	80.5
3.4	17	2.5	2.5	83.0
3.5	36	5.2	5.2	88.2
3.6	8	1.2	1.2	89.4
4.0	52	7.5	7.6	96.9
4.4	1	.1	.1	97.1
4.5	8	1.2	1.2	98.3
4.6	2	.3	.3	98.5
4.8	4	.6	.6	99.1
5.0	1	.1	.1	99.3
5.5	1	.1	.1	99.4
5.8	1	.1	.1	99.6
6.0	3	.4	.4	100.0
Missing	6	.9	Missing	
Total	693	100.0	100.0	

Table 11. Total AVTS Credits

Number of Credits	Frequency	Percent	Valid Percent	Cumulative Percent
.0	531	76.6	77.2	77.2
1.0	3	.4	.4	77.6
1.5	1	.1	.1	77.8
2.0	11	1.6	1.6	79.4
3.0	12	1.7	1.7	81.1
4.0	18	2.6	2.6	83.7
5.0	11	1.6	1.6	85.3
6.0	68	9.8	9.9	95.2
7.0	2	.3	.3	95.5
8.0	14	2.0	2.0	97.5
10.0	17	2.5	2.5	100.0
Missing	5	.7	Missing	
Total	693	100.0	100.0	

Table 12. Frequency Distribution for Age

Age	Frequency	Percent	Valid Percent	Cumulative Percent
18	4	.5	.5	.7
19	171	24.7	24.8	25.4
20	63	9.1	9.1	34.5
21	9	1.3	1.3	35.8
22	179	25.8	26.0	61.8
23	51	7.4	7.4	69.2
24	3	.4	.4	69.7
25	165	23.8	23.9	93.6
26	38	5.5	5.5	99.1
27	4	.6	.6	99.7
36	1	.1	.1	99.9
47	1	.1	.1	100.0
Missing	4	.6	Missing	
Total	693	100.0	100.0	

Table 13. Frequency of Choice of High School Program

Choice	Yes	No	Missing	Total	Percent Yes
ACP	435	255	3	693	63.0
GEN	79	611	3	693	11.4
HSBP	70	620	3	693	10.1
AVTS	142	548	3	693	20.6

Table 14. Chi-Square Analyses for Satisfaction

Satisfaction	Group						TOTAL
	ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	
Very Satisfied	54	2	15	13	5	4	93 13.7%
Satisfied	256	38	54	79	39	25	491 72.4%
Dissatisfied	56	4	7	8	5	4	84 12.4%
Very	6	0	1	2	1	0	10 1.5%
Total	372	44	77	102	50	33	678*
Percent	54.9%	6.5%	11.4%	15.0%	7.4%	4.9%	100%

*15 graduates did not answer

Chi-Square	D.F.	Significance
14.48	15	.4893 n.s.

Table 15. Chi-Square Analysis for Preparedness

	Group						
Preparedness	ACP	GEN	HSPB	AVTS	MULT/AVTS	MULT	TOTAL
Very Prepared	29	0	9	9	2	4	53 7.8%
Prepared	243	29	51	61	29	22	435 64.3%
Unprepared	87	14	13	28	18	7	167 24.7%
Very Unprepared	12	1	4	3	2	0	22 3.2%
Total	371	44	77	101	51	33	677*
Percent	54.8%	6.5%	11.4%	14.9%	7.5%	4.9%	100.0%

* 16 graduates did not answer

Chi-Square	Dif.	Significance
15.78	15	.3967 n.s.

Table 16. Chi-Square Analysis for Influential Persons

	Group						
Person	ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
H.S. Teacher	26 (7.0)	3 (6.7)	8 (10.4)	3 (2.9)	0 (0)	3 (9.1)	43 6.4
H.S. Counsel.	14 (3.8)	10 (22.2)	7 (9.1)	3 (2.9)	2 (3.9)	2 (6.1)	38 5.7
JH/MS Teacher	11 (2.9)	3 (6.7)	2 (2.6)	3 (2.9)	1 (2.0)	1 (3.0)	21 3.1
JH/MS Counselor	7 (1.9)	0 (0)	3 (3.9)	6 (5.9)	0 (0)	1 (3.0)	17 2.5
Vo-Tech Teacher	1 (.3)	0 (0)	0 (0)	9 (8.8)	7 (13.7)	0 (0)	17 2.5
Vo-Tech Counselor	0 (0)	0 (0)	0 (0)	0 (0)	2 (3.9)	0 (0)	2 .3
Parent	250 (67.0)	10 (22.2)	33 (42.9)	33 (32.4)	15 (29.4)	12 (36.4)	353 52.5
Relative	12 (3.2)	2 (4.4)	4 (5.2)	5 (4.9)	3 (5.9)	4 (12.1)	30 4.5
Friend	7 (1.9)	2 (4.4)	4 (5.2)	13 (12.7)	7 (13.7)	1 (3.0)	34 5.1
Other	42 (11.3)	12 (26.7)	15 (19.5)	25 (24.5)	14 (27.5)	9 (27.3)	117 17.4
Total	370	42	76	100	51	33	672*
Percent	55.1	6.3	11.3	14.9	7.6	4.9	100.0

*21 graduates did not answer

Chi-Square	Dif.	Significance
216.61	45	.0000

Table 17. Chi-Square Analysis for Employment Status

	Group						
Work Status	ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
Full-Time	178	29	57	79	29	19	391
	(47.7)	(64.4)	(74.0)	(77.5)	(56.9)	(57.6)	57.7
Part-Time	52	5	12	6	9	3	87
	(13.9)	(11.1)	(15.6)	(5.9)	(17.6)	(9.1)	12.8
Unemployed	4	1	1	4	1	0	11
	(1.1)	(2.2)	(1.3)	(3.9)	(2.0)	(0)	1.6
Homemaker	2	1	5	2	1	1	12
	(.5)	(.0)	(6.5)	(2.0)	(2.0)	(3.0)	1.8
Health Prob	2	0	1	0	0	0	3
	(.5)	(2.2)	(1.3)	(0)	(0)	(0)	.4
School	122	5	0	6	9	9	151
	(32.7)	(11.1)	(0)	(5.9)	(17.6)	(27.3)	22.3
Service	9	2	1	3	1	1	17
	(2.4)	(4.4)	(1.3)	(2.9)	(2.0)	(3.0)	2.5
Other	3	1	0	1	1	0	6
	(.8)	(2.2)	(0)	(1.0)	(2.0)	(0)	.9
Total	372	44	77	101	51	33	678*
Percent	54.9	6.5	11.4	14.9	7.5	4.9	100.0

*15 graduates did not answer

Chi-Square	D.F.	Significance
99.09	35	.0000

Table 18. Chi-Square Analysis for Change of Residence

Changing Residence	Group ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
Yes	173	14	11	20	15	9	242
	(46.4)	(31.1)	(14.3)	(19.6)	(29.4)	(27.3)	35.8%
No	198	29	66	81	36	24	434
	(53.1)	(64.4)	(85.7)	(79.4)	(70.6)	(72.7)	64.2%
Total	371	43	77	101	51	33	676*
Percent	54.9	6.4	11.4	14.9	7.5	4.9	100.0

*17 Graduates did not respond

Chi-Square	D.F.	Significance
47.84	5	.0000

Table 19. Chi-Square Analysis of Parents Education by High School Program

Father

Level of Education	Group ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
Less than High School	22 (5.9)	14 (31.1)	17 (22.1)	27 (26.5)	12 (23.5)	6 (18.2)	98 14.7
High School Grad	136 (36.5)	21 (46.7)	48 (62.3)	54 (52.9)	19 (37.3)	13 (39.4)	291 43.7
2 year college	32 (8.6)	3 (6.7)	3 (3.9)	9 (8.8)	6 (11.8)	6 (18.2)	59 8.9
4 year college	73 (19.6)	2 (4.4)	2 (2.6)	3 (2.9)	4 (7.8)	4 (12.1)	88 13.2
More than 4	86 (23.1)	2 (4.4)	2 (2.6)	3 (2.9)	7 (13.7)	3 (9.1)	103 15.5
Trade School	19 (5.1)	1 (2.2)	4 (5.2)	1 1.0)	2 (3.9)	0 (0)	27 4.1
Total	368	43	76	97	50	32	666*
Percent	55.3	6.5	11.4	14.6	7.5	4.8	100.0

*27 graduates did not respond

Chi-Square	D.F.	Significance
47.84	5	.0000

Table 20. Chi-Square Analysis of Parents Education by High School Program

Mother

Level of Education	Group ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
Less than High School	21 (5.6)	7 (15.6)	16 (20.8)	19 (18.6)	9 (17.6)	4 (12.1)	76 11.4
High School Grad	194 (52.0)	26 (57.8)	50 (64.9)	71 (69.6)	32 (62.7)	21 (63.6)	394 59.2
2 year college	51 (13.7)	5 (11.1)	3 (3.9)	8 (7.8)	4 (7.8)	7 (21.2)	78 11.7
4 year college	51 (13.7)	3 (6.7)	1 (1.3)	1 (1.0)	1 (2.0)	1 (3.0)	58 8.7
More than 4	32 (8.6)	1 (2.2)	0 (0)	0 (0)	2 (3.9)	0 (0)	35 5.3
Trade School	15 (4.0)	0 (0)	6 (7.8)	1 (1.0)	3 (5.9)	0 (0)	25 3.8
Total	364	42	76	100	51	33	666*
Percent	54.7	6.3	11.4	15.0	7.7	5.0	100.0

*25 graduates did not respond

Chi-Square	D.F.	Significance
96.29	25	.0000

Table 21. Chi-Square Analysis for Post-Secondary Education

	Group						
School	ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
No	15	15	25	48	13	5	121
	(4.0)	(33.3)	(32.5)	(47.1)	(25.5)	(15.2)	18.0
Yes	354	29	51	52	38	28	552
	(94.9)	(64.4)	(66.2)	(51.0)	(74.5)	(84.8)	82.0
Total	369	44	76	100	51	33	673*
Percent	54.8	6.5	11.3	14.9	7.6	4.9	100.0

*20 graduates did not respond

Chi-Square	D.F.	Significance
130.90	5	.0000

Table 22. Full or Part-Time Employment for First Job

	Group						
Job	ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
Full-Time	176	25	52	73	33	20	379
	(56)	(58)	(68)	(78)	(70)	(66)	62.6
Part-Time	138	18	24	21	14	11	226
	(44)	(42)	(32)	(22)	(30)	(34)	37.4
Total	314	43	76	94	47	31	605*
Percent	51.9	7.1	12.5	15.5	7.8	5.1	100.0

*88 graduates did not respond

Chi-Square	D.F.	Significance
17.54	5	.0036

Table 23. Full or Part-Time Employment for Second Job

	Group						
Job	ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
Full-Time	100	15	24	44	21	11	215
	(54)	(68)	(63)	(85)	(78)	(65)	63.2
Part-Time	84	7	14	8	6	6	125
	(46)	(32)	(37)	(15)	(22)	(35)	36.8
Total	184	22	38	52	27	17	340*
Percent	54.1	6.5	11.2	15.3	7.9	5.0	100.0

*353 graduates did not respond

Chi-Square	D.F.	Significance
19.18	5	.0018

Table 24. Full and Part-Time Employment for Third Jobs

	Group						
Job	ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
Full-Time	144	26	47	47	26	17	315
	(72)	(90)	(81)	(81)	(74)	(81)	78.2
Part-Time	55	3	11	11	9	4	88
	(28)	(10)	(19)	(19)	(26)	(19)	21.8
Total	199	29	58	58	35	21	403*
Percent	49.4	7.2	14.4	14.4	8.7	5.2	100.0

*290 graduates did not respond

Chi-Square	D.F.	Significance
11.99	5	.0348

Table 25. Hours Per Week Worked by Graduates

Job	Hours		
	Average	Mode	S.D.
First	34.8	40.0	11.250
Second	34.6	40.0	11.185
Third	36.3	40.0	11.306

Table 26. Hours Per Week Worked by ACP Graduates

Job	Hours		
	Average	Mode	S.D.
First	33.2	40.0	11.778
Second	33.0	40.0	11.986
Third	34.5	40.0	12.282

Table 27. Hours Per Week Worked by GEN Graduates

Job	Hours		
	Average	Mode	S.D.
First	35.1	40.0	13.566
Second	36.4	40.0	8.721
Third	39.7	40.0	8.404

Table 29. Hours Per Week Worked by AVTS Graduates

Job	Hours		
	Average	Mode	S.D.
First	38.1	40.0	8.298
Second	38.6	40.0	9.264
Third	39.1	40.0	8.834

Table 30. Hours Per Week Worked by MULT/AVTS Graduates

	Hours		
Job	Average	Mode	S.D.
First	38.3	40.0	12.510
Second	39.9	40.0	9.098
Third	36.4	40.0	11.447

Table 31. Hours Per Week Worked by MULT Graduates

Job	Hours		
	Average	Mode	S.D.
First	34.6	40.0	10.708
Second	33.8	40.0	9.649
Third	40.3	40.0	9.567

Table 32. Number of Graduates Reporting Self-Employment

Job		Group ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
First	Yes	14	0	3	2	1	1	21
	No	296	40	70	91	46	30	573
Second	Yes	4	0	1	2	1	0	8
	No	177	22	34	48	26	16	323
Third	Yes	8	1	5	1	4	3	22
	No	184	27	50	59	30	16	366

Table 33. Chi-Square Analysis for Salary by Category - First Job

Salary	Group ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
$0 to 5,000	164	18	20	21	11	12	246
							41.5
$5,001 to 10,000	50	11	21	33	15	6	136
							22.9
$10,001 to 15,000	35	8	21	19	13	7	103
							17.4
$15,001 to 20,000	27	3	5	13	2	2	52
							8.8
$20,001 to 25,000	13	0	2	3	1	0	19
							3.2
$25,001 to 30,000	11	2	1	3	1	1	19
							3.2
$30,001 to 35,000	3	1	1	1	0	1	7
							1.2
$35,001 to 40,000	2	0	1	1	1	0	5
							.8
$40,001 +	3	0	0	0	2	1	6
							1.0
Total	308	43	72	94	46	30	593*
Percent	51.9	7.3	12.1	15.9	7.8	5.1	100.0

*100 graduates did not respond

Chi-Square	D.F.	Significance
79.45	40	.0002

Table 34. Chi-Square Analysis for Salary by Category - Second Job

	Group						
Salary	ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
$0 to 5,000	96	7	6	10	6	7	132
							39.9
$5,001 to 10,000	32	8	14	14	7	6	81
							24.5
$10,001 to 15,000	33	4	9	17	9	2	74
							22.4
$15,001 to 20,000	10	2	4	5	3	2	26
							7.9
$20,001 to 25,000	6	1	1	3	1	0	12
							3.6
$25,001 to 30,000	3	0	0	2	0	0	5
							1.5
$30,001 to 35,000	0	0	0	0	0	0	0
							0
$35,001 to 40,000	0	0	0	0	0	0	0
							0
$40,001 +	0	0	0	1	0	0	1
							.3
Total	180	22	34	52	26	17	331*
Percent	54.4	6.6	10.3	15.7	7.9	5.1	100.0

*362 graduates did not respond

Chi-Square	D.F.	Significance
49.50	30	.0140

Table 35. Chi-Square Analysis for Salary by Category - Third Job

	Group						
Salary	ACP	GEN	HSBP	AVTS	MULT/AVTS	MULT	TOTAL
$0 to 5,000	48	3	7	4	7	1	70
							17.6
$5,001 to 10,000	17	3	6	9	5	3	43
							10.8
$10,001 to 15,000	29	6	20	12	7	6	80
							20.1
$15,001 to 20,000	35	8	17	19	7	4	90
							22.6
$20,001 to 25,000	25	3	7	10	6	1	52
							13.1
$25,001 to 30,000	21	2	0	4	0	2	29
							7.3
$30,001 to 35,000	14	2	0	3	0	1	20
							5.0
$35,001 to 40,000	2	1	0	1	3	0	7
							1.8
$40,001 +	5	1	0	0	0	1	7
							1.8
Total	196	29	57	62	35	19	398*
Percent	49.2	7.3	14.3	15.6	8.8	4.8	100.0

*295 graduates did not respond

Chi-Square	D.F.	Significance
67.16	40	.0046

Table 36. Number of Employees at Work Site

	Job			
Employees	First	Second	Third	Total
1-19	283	155	133	571
	46.5	46.3	33.0	42
20-99	188	97	107	392
	30.9	29.0	26.6	29
100-499	77	54	83	214
	12.7	16.1	20.6	16
500 or more	60	29	80	169
	9.9	8.7	19.9	13
Total	608*	335**	403***	1346
Percent	100.0	100.0	100.0	

*85 graduates did not respond
**358 Graduates did not respond
***290 graduates did not respond

Table 37. ANOVA for Grade Point Average of the Graduates

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
Between Groups	5	86.81	17.36	38.24	.0000
Within Groups	670	304.18	.45		
Total	675	390.99			

Table 38. Scheffe for GPA by High School Program

GPA Mean	Program	GEN	MULT/ AVTS	HSBP	AVTS	MULT	ACP
1.95	GEN						
2.32	MULT/AVTS						
2.47	HSBP	*					
2.54	AVTS	*					
2.66	MULT	*					
3.07	ACP	*	*	*	*	*	*

*Denotes pairs of groups are significantly different (.05)

Table 39. ANOVA for Class Rank of the Graduates

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
Between Groups	5	109,081.57	21,816.31	38.73	.0000
Within Groups	666	375,137.07	563.27		
Total	671	484,218.64			

Table 40. Scheffe for Class Rank by High School Program

Class Rank**	Program	GEN	MULT/ AVTS	HSBP	AVTS	MULT	ACP
31.27	GEN						
45.29	MULT/AVTS						
49.56	HSBP	*					
51.54	AVTS	*					
57.06	MULT	*					
71.20	ACP	*	*	*	*	*	*

*Denotes pairs of groups are significantly different (.05)
**Number represents an inverted percentile with higher number meaning high class rank.

Table 41. ANOVA for English Credits of the Graduates

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
Between Groups	5	3.08	.62	5.19	.0001
Within Groups	672	79.75	.12		
Total	677	82.83			

Table 42. Scheffe for English Credits Earned by High School Program

English Credits	Program	AVTS	HSBP	MULT/ AVTS	MULT	ACP	GEN
2.99	AVTS						
3.02	HSBP						
3.04	MULT/AVTS						
3.08	MULT						
3.15	ACP	*					
3.16	GEN						

*Denotes pairs of groups are significantly different (.05)

Table 43. ANOVA for Math Credits of the Graduates

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
Between Groups	5	297.85	59.57	101.17	.0000
Within Groups	671	395.10	.59		
Total	676	692.95			

Table 44. Scheffe for Math Credits Earned by High School Program

Math Credits	Program	AVTS	HSBP	MULT/ AVTS	GEN	MULT	ACP
1.43	AVTS						
1.54	HSBP						
1.91	MULT/AVTS	*					
2.28	GEN	*	*				
2.41	MULT	*	*				
3.00	ACP	*	*	*	*	*	

*Denotes pairs of groups are significantly different (.05)

Table 45. ANOVA for Science Credits of the Graduates

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
Between Groups	5	499.78	99.95	178.36	.0000
Within Groups	671	376.04	.56		
Total	676	875.81			

Table 46. Scheffe for Science Credits Earned by High School Program

Science Credits	Program	HSBP	AVTS	MULT/ AVTS	GEN	MULT	ACP
1.04	HSBP						
1.26	AVTS						
1.61	MULT/AVTS	*					
1.95	GEN	*	*				
2.14	MULT	*	*				
3.10	ACP	*	*	*	*	*	

*Denotes pairs of groups are significantly different (.05)

Table 47. ANOVA for Vo-tech Credits of the Graduates

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
Between Groups	5	3,949.01	789.80	723.57	.0000
Within Groups	672	733.51	1.09		
Total	677	4,682.52			

Table 48. Scheffe for Vo-tech Credits Earned by High School Program

Vo-tech Credits	Program	HSBP	MULT	ACP	GEN	MULT/AVTS	AVTS
.00	HSBP						
.00	MULT						
.02	ACP						
.11	GEN						
4.82	MULT/ AVTS	*	*	*	*		
6.23	AVTS	*	*	*	*	*	

*Denotes pairs of groups are significantly different (.05)

Table 49. ANOVA for Total Credits Earned by the Graduates

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
Between Groups	5	2,205.69	441.14	212.79	.0000
Within Groups	669	1,387.48	2.07		
Total	674	3,593.17			

Table 50. Scheffe for Total Credits Earned by High School Program

Total Credits	Program	HSBP	MULT	GEN	ACP	MULT/ACP	AVTS
5.60	HSBP						
7.48	MULT	*					
7.50	GEN	*					
9.26	ACP	*	*	*			
11.39	MULT/ AVTS	*	*	*	*		
11.91	AVTS	*	*	*	*		

*Denotes pairs of groups are significantly different (.05)

APPENDIX

Transcript Evaluation Form
Completed by High School
Counselors

Letter to Graduates

Questionnaire Sent to
Graduates

PENNSYLVANIA GRADUATE STUDY

Name: _____ Ss Number: _____

Address: _____

_____

_____ Phone: _____

- - - -

Pennsylvania Graduate Study
Sponsored by Pennsylvania Department of Education

Gateway Professional Center
2045 Westgate Drive, Suite 304
Bethlehem, PA 18017

Dr. Artis J. Palmo
Project Coordinator
(215) 865-8177

Dear Graduate:

During the upcoming months, a random sample of graduates from the Bethlehem, Northampton, and Saucon Valley School Districts is being surveyed to determine the types of employment and educational experiences they have had since graduating from high school. The results of the survey will provide valuable information regarding the employment and educational activities of high school graduates. With this information, the districts will be able to evaluate the types of courses and curricula that can best prepare high school students for the future.

This leads to the intent of this letter and your involvement in this important project. Through a random selection process, you were chosen to participate in the survey. It is very important that you complete the survey, since you were one of a select group that was chosen to participate. With your cooperation, we will be able to have a representative sample of graduates for the survey.

The enclosed questionnaire should take you approximately 15 minutes to complete. You are urged to complete the questionnaire as soon as possible and return it in the enclosed envelope. All of the information on the questionnaire will be held in the strictest confidence. Once you have returned the questionnaire, all identifying information will be removed.

Once again, it is very important for you to return the questionnaire since you are one of a select few chosen to complete the survey. Your cooperation in completing this survey will be greatly appreciated.

If you should have any questions, please contact the Pennsylvania Graduate Study Office at (215) 865-8177 and identify yourself as a graduate involved in the Pennsylvania Graduate Study. We will be very glad to answer your questions.

With grateful appreciation,

Artis J. Palmo

IMPORTANT: If the addressee no longer resides at this address, will the reader of this letter please be sure to forward the questionnaire to them.

Pennsylvania Graduate Study
Sponsored by Pennsylvania Department of Education

Gateway Professional Center
2045 Westgate Drive, Suite 304
Bethlehem, PA 18017

Dr. Artis J. Palmo
Project Coordinator
(215) 865-8177

PENNSYLVANIA FOLLOW-UP STUDY OF HIGH SCHOOL GRADUATES

Section I - General Information

Please answer the following questions as completely and accurately as possible.

1. What is your present age?_____

2. From which high school program did you graduate?
Check One (✔)
___Academic/College Prep
___General
___Business (Home School Program)
___Vo-Tech (Bethlehem AVTS)
Shop:_____

3. Were you satisfied with your high school program?
Check One (✔)
___Very Satisfied
___Satisfied
___Dissatisfied
___Very Dissatisfied

4. Did your high school program prepare you for the decisions you had to make immediately following high school?
Check One (✔)
___Very Prepared
___Prepared
___Unprepared
___Very Unprepared

5. As you look back at your choice of a high school program (Program selected in Item 2), what person influenced you the most in making that choice?
Choose One (✔)
___High School Teacher
___High School Counselor
___Junior High/Middle School Teacher
Junior High/Middle School Counselor
___Vo Tech Teacher
___Vo Tech Counselor
___Parent
___Other Relative
___Friend from school
___Other, Please Identify:_____

6. What is your present marital status? (✔)
___Married _____Never Married
___Divorced _____Separated

7. How many children do you have?
(include step children, if applicable)
___Boys _____Girls

8. What are you presently doing? (✔)
_____Working at a Full-Time Job
(35 or more hours per week).
_____Working at a Part-Time Job
(Less than 35 hours per week)
_____Unemployed
_____Homemaker
_____Unable to work due to a health problem
_____Attending School (Trade, College, etc.)
_____In the Armed Services
_____Other, please specify:_____
_____

9. Did you serve in the Armed Services? (✔)
_____No
_____Yes, please specify branch:_____
Year entered 19_____. Year discharged 19 _____

10. In the first 18 months following high school, did you change residence? (✔) _____Yes_____No
If Yes, was your first move: (✔)
_____Within the county
_____Out of the county, but within PA to_____
(County) (City)
_____Out of PA to_____
(State)
If you answered yes to Item 10, what was the primary reason for moving?
(Check all that apply ✔)
_____Employment _____Marriage
_____Education _____Armed Service
_____Personal _____Other, specify:
_____

11. Where do you presently live? (✔)
_____Rural (Country, Small Town)
_____Suburban
_____Urban (Large City)

12. What is the highest level of education completed by your parents?
Check one for each parent: (✔)

Father		Mother
_____	Less than high school	_____
_____	High School Graduate	_____
_____	2 years of College	_____
_____	4 years of College	_____
_____	More than 4 Years of College	_____
_____	Trade School	_____

Section II - Educational History

13. Have you attended any type of formal schooling (College, Trade, Vocational) since you graduated from high school? (✔)
_____No, **please go to Item 16, Section III.**
_____Yes, **please continue to Item 14.**

14. What is your current status in your post-secondary program of study? (✔)
___Completed schooling, graduated in 19_____
___Presently enrolled full-time, anticipate graduating in 19_____
_____Presently enrolled part-time, anticipate graduating in 19_____
_____No longer attending, but intend to return in _____month_____year
_____No longer attending, do not intend to return.

15. What type of post-secondary school have you attended? (✔)
_____Four-year college or university, **including branch campuses.** Please name:
_____
_____Two-year branch campus of a university. Please name:_____
_____Community College. Please name:_____
_____
_____Post-Secondary Vocational-Technical School. Please name:_____
_____
_____Private Business, Technical, or Trade Institute. Please name:_____
_____
_____Other. Please specify:_____
_____

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Section III Employment History

In order to obtain a representative sampling of your work history, will you please provide the following information for your **first job after high school**, your **second job after high school**, and your **present job.** If your present job is also your first job, simply answer in Column #1 and check here (_____).

	#1 First Job	#2 Second Job	#3 Present Job
16. Job Title: Please give a brief job description.	_____	_____	_____
17. Was/Is your job?	_____Full-Time _____Part-Time	_____Full-Time _____Part-Time	_____Full-Time _____Part-Time
18. Number of hours per week.	_____hours/week	_____hours/week	_____hours/week
19. Were/Are you self employed?	_____Yes _____No	_____Yes _____No	_____Yes _____No

20. What was/is your salary? Place a check (✔) in the appropriate parentheses for each job.

	1st	2nd	Present Job
1. $0 to $5,000	1st ( )	2nd ( )	Present Job ( )
2. $5,001 to $10,000	1st ( )	2nd ( )	Present Job ( )
3. $10,001 to $15,000	1st ( )	2nd ( )	Present Job ( )
4. $15,001 to $20,000	1st ( )	2nd ( )	Present Job ( )
5. $20,001 to $25,000	1st ( )	2nd ( )	Present Job ( )
6. $25,001 to $30,000	1st ( )	2nd ( )	Present Job ( )
7. $30,001 to $35,000	1st ( )	2nd ( )	Present Job ( )
8. $35,001 to $40,000	1st ( )	2nd ( )	Present Job ( )
9. $40,001+	1st ( )	2nd ( )	Present Job ( )

21. How did you find your job? Place a check (✔) in the appropriate parentheses for each job.

	1st	2nd	Present Job
1. H.S. Teacher	1st ( )	2nd ( )	Present Job ( )
2. H.S. Counselor	1st ( )	2nd ( )	Present Job ( )
3. Vo-Tech Teacher	1st ( )	2nd ( )	Present Job ( )
4. Vo-Tech Counselor	1st ( )	2nd ( )	Present Job ( )
5. Co-op Program	1st ( )	2nd ( )	Present Job ( )
6. Family Member	1st ( )	2nd ( )	Present Job ( )
7. Friend	1st ( )	2nd ( )	Present Job ( )
8. Newspaper Ad	1st ( )	2nd ( )	Present Job ( )
9. State Employment Office	1st ( )	2nd ( )	Present Job ( )
10. Placement Office at School (Trade, College, Vocational)	1st ( )	2nd ( )	Present Job ( )
11. Went to Employer Myself	1st ( )	2nd ( )	Present Job ( )
12. Other, Please Specify:	1st ( )	2nd ( )	Present Job ( )

22. How satisfied are/were you with the job? (✔)

	1st	2nd	Present Job
Very Satisfied	1st ( )	2nd ( )	Present Job ( )
Satisfied	1st ( )	2nd ( )	Present Job ( )
Dissatisfied	1st ( )	2nd ( )	Present Job ( )
Very Dissatisfied	1st ( )	2nd ( )	Present Job ( )

23. What type of on-the-job training was provided? **Check all that apply.** (✔)

	1st	2nd	Present Job
1. Employer provided a formal on-the-job training program	1st ( )	2nd ( )	Present Job ( )
2. Learned the job by myself	1st ( )	2nd ( )	Present Job ( )
3. Learned the job from my supervisor	1st ( )	2nd ( )	Present Job ( )
3. Learned the job from my co-workers	1st ( )	2nd ( )	Present Job ( )

24. Were you satisfied with the on-the-job training? (✔)

	1st	2nd	Present Job
Yes	1st ( )Yes	2nd ( )Yes	Present Job ( )Yes
No	1st ( )No	2nd ( )No	Present Job ( )No

25. Approximately how many are/were employed where you work(ed)? (✔)

	1st	2nd	Present Job
1 - 19	1st ( )	2nd ( )	Present Job ( )
20 - 99			
100 - 499	1st ( )	2nd ( )	Present Job ( )
500 or more	1st ( )	2nd ( )	Present Job ( )

26. Does/Did the employer have any other locations in Pennsylvania? (✔)

	1st	2nd	Present Job
Yes	1st ( )Yes	2nd ( )Yes	Present Job ( )Yes
No	1st ( )No	2nd ( )No	Present Job ( )No
Don't Know	1st ( ) ?	2nd ( ) ?	Present Job ( ) ?

In other states? (✔)

	1st	2nd	Present Job
Yes	1st ( )	2nd ( )Yes	Present Job ( )Yes
No	1st ( )	2nd ( )	Present Job ( )
Don't Know	1st ( ) ?	2nd ( ) ?	Present Job ( ) ?

Please write any additional comments you may have on a separate sheet and attach them to this questionnaire.

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